

# ENHANCING BUILDING SERVICES COST MANAGEMENT KNOWLEDGE AMONG QUANTITY SURVEYORS

SUHAILA BINTI REMELI

UNIVERSITI TEKNOLOGI MALAYSIA

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A thesis submitted in fulfillment of the  
requirements for the award of the degree of  
Master of Science (Quantity Surveying)

Faculty of Built Environment  
Universiti Teknologi Malaysia

AUGUST 2013

*Special dedicated to:*

*My beloved parents, Ayah and Mak*

*My dearest siblings,*

*Abang Rizal, Kak Jue, Kak Ida, Abg Joe, Kak Eni, Abg Ang, Kak*

*Ena, Adik Paih*

*Who offered me unconditional love and support...*

*My supportive supervisor, Dr. Sarajul Fikri Mohamed*

*Who teach and guide me throughout the research...*

*All my faithful friends,*

*My dearest roommates,*

*Nurizan, Mazlin, Khairiah, Nisa*

*My Comrades,*

*Shazwani, Ganiyu, Amirrul Amir, Faizal, Hayani, Dayah, Farah,*

*Noien, Wani, Yong, Akma, Ridzuan, Qayyum, Hafiz and Shidah*

*For their friendships and supportive that brightens my research life...*

## ACKNOWLEDGEMENT

In the name of Allah, most benevolent and ever-merciful, All praises be to Allah Lords of the worlds. First and foremost, I would like to express my heartfelt gratitude to Dr Sarajul Fikri Mohamed to be such inspirational, supportive, patient and being so consideration through my research journey to produce a quality work, generous advices, guidance, comments, patience, commitments and exposed me to the world of research. I would also like to thank my examiners who provided encouraging and constructive feedback. It is not an easy task, reviewing a thesis, and I am grateful for their thoughtful and detailed comments.

This thesis was funded by grant by Universiti Teknologi Malaysia and I would like to endlessly thank university for the generous support. As a member of the Universiti Teknologi Malaysia, I have been surrounded by wonderful friends; they provided a rich and fertile environment to study and explore new ideas. Thank you Shazwani, Ganiyu, Nurizan, Mazlin, Khairiah, Nisa, Amirrul Amir, Faizal, Hayani, Farah Farhana, Hidayah, Anne, Akma, Hazren, Halwani, Ridzuan, Qayyum, Hafiz and Shidah and others who being so supportive along the lonely journey.

In addition, my sincere appreciation especially to my parents; Remeli and Fatimah; my siblings; Rizal, Norhalida, Rozaini, Ruzaina and Mohd Faiz who have never declined me any support and endlessly love throughout my research journey. They have been very supportive to my ideas and kept inspiring me besides pouring me their unconditional love that has been the drive in pursuing my dreams. Heartiest thank.

Last but not least, to Allah, most gracious and most merciful. Most thankful to Allah. Alhamdulillah. Without Allah I cannot strive to the end of the journey. Thank you for the strength and courage given. Thank you for the help with everything. Your grace and love is what I need in my whole life. May the love for you Allah, is greater than the love for your creatures.

## **ABSTRACT**

It is essential for quantity surveyors to improve their knowledge in building services cost management to avoid financial loss in a construction project. The need of mechanical and electrical quantity surveyor in construction industry is vital for clients to have a proper cost management of building services. The objective of this research is to examine the level of involvement of quantity surveyors in the cost management of building services. It investigates the nature of quantity surveyors' knowledge gap in building services cost management and identifies the measures to bridge the knowledge gap in building services cost managements. The research methods used are questionnaires survey among quantity surveyors and semi structured interviews among quantity surveyors and building services engineers, who are randomly selected from those having at least 10 years of experience in construction industry. Four crucial gaps were identified as the barriers which hinder quantity surveyors to manage building services cost management. The main gap is the omission of building services in the scope of work of quantity surveyors which lead to the work being passed to the building services engineers. Traditionally, the quantity surveyors are not involved in building services cost management. Therefore, quantity surveyors faced difficulty in understanding and interpreting mechanical and electrical components during measurement due to the non-availability of complete drawing. Furthermore, quantity surveyors are not well-skilled to manage building services cost management and seldom included in the scope of works. Hence, it is recommended that building services training and Quantity Surveyor Building Services Programme should be included in the program syllabus and curriculum so as to enhance the knowledge of quantity surveyor and increase their involvement in the field. Quantity surveyors should be responsible and play their roles in controlling the cost of a project. They must have a thorough knowledge in building services work other than building works for them to venture into a wider scope of works.

## ABSTRAK

Mempertingkatkan pengetahuan dalam pengurusan kos kemudahan bangunan oleh Juruukur Bahan adalah sangat penting bagi mengelakkan kerugian yang tinggi dalam sesebuah projek. Perlunya seorang Juruukur Bahan Mekanikal dan Elektrikal dalam industri pembinaan adalah penting bagi klien untuk pengurusan kos kemudahan bangunan yang betul. Objektif kajian ini adalah untuk mengkaji tahap penglibatan Juruukur Bahan dalam pengurusan kos kemudahan bangunan; mengenal pasti sifat jurang pengetahuan Juruukur Bahan dalam menguruskan kos kemudahan bangunan dan mengenal pasti langkah-langkah untuk merapatkan jurang pengetahuan tersebut. Kajian metodologi yang digunakan adalah soal selidik di kalangan Juruukur Bahan, temu bual semi-struktur dengan kedua-dua pihak yang terlibat; Juruukur Bahan dan Jurutera Kemudahan Bangunan dipilih secara rawak yang mempunyai sekurang-kurangnya 10 tahun pengalaman dalam industri pembinaan. Terdapat empat jurang penting yang dikenal pasti sebagai kekangan Juruukur Bahan dalam mengendalikan kos kemudahan bangunan. Antara kekangannya ialah penolakan kemudahan bangunan daripada skop kerja Juruukur Bahan mengakibatkan skop kerja tersebut diserahkan kepada jurutera kemudahan bangunan. Secara tradisionalnya, Juruukur Bahan tidak terlibat dalam pengurusan kos kemudahan bangunan. Jadi, Juruukur Bahan menghadapi kesukaran dalam memahami dan mentafsir komponen kemudahan bangunan semasa membuat pengukuran kerana lukisan projek yang tidak lengkap. Tambahan pula, Juruukur Bahan tidak berkemahiran untuk menguruskannya dan jarang dimasukkan ke dalam skop kerja Juruukur Bahan. Oleh itu, latihan dalam bidang ini dan Program Juruukur Bahan Kemudahan Bangunan perlu dimasukkan ke dalam kurikulum dan sukatan program adalah dicadangkan untuk meningkatkan pengetahuan Juruukur Bahan dan meningkatkan penglibatan Juruukur Bahan dalam bidang ini. Juruukur Bahan perlu bertanggungjawab memainkan peranan mereka dalam mengawal kos projek. Mereka juga hendaklah mempunyai pengetahuan yang mendalam dalam kemudahan bangunan selain dari kerja bangunan sahaja untuk berkecimpung dalam bidang yang lebih luas.